(FILE 'HOME' ENTERED AT 18:19:12 ON 22 DEC 2003)

FILE 'MEDLINE, CANCERLIT, EMBASE, BIOSIS, BIOTECHDS, CAPLUS' ENTERED AT 18:19:27 ON 22 DEC 2003

L1	40	S	ELECTROPORATION CHAMBER
L2	1401525	S	ELECTROP?
L3	161246	S	FLOW RATE
L4	1401525	S	L2 OR L1
L5	2124	S	L4 AND L3
L6	1117448	S	COMPUTER OR COMPUTATION OR ALGORITHM
L7	47	S	L6 AND L5
L8	34		DUP REM L7 (13 DUPLICATES REMOVED)

=>

L8 ANSWER 21 OF 34 MEDLINE on STN DUPLICATE 6
AN 96229040 MEDLINE
DN 96229040 PubMed ID: 8779421
TI Design of a high-precision fraction collector for capillary **electrophoresis**.
AU Muller O; Foret F; Karger B L
CS Barnett Institute, Northeastern University, Boston, Massachusetts 02115, USA.
NC GM15847 (NIGMS)
SO ANALYTICAL CHEMISTRY, (1995 Sep 1) 67 (17) 2974-80.
Journal code: 0370536. ISSN: 0003-2700.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199609
ED Entered STN: 19960924
Last Updated on STN: 19960924
Entered Medline: 19960918
AB A high-precision fraction collector for capillary **electrophoresis** has been developed. The device utilizes detection close to the end of the capillary and a sheath liquid at the exit of the capillary, allowing continuous collection (i.e., uninterrupted applied electrical field) of multiple species. The role of the sheath liquid **flow rate** and position of detection in the column on the collection precision was assessed. Fiber-optic detection at approximately 1 cm before the exit end of the capillary was found effective for precise timing of the collection. Up to 60 fractions of microliter or smaller volumes could be automatically collected into capillaries used as collection vials. The collection capillaries were placed on a cylinder, and a **computer**-controlled stepping motor aligned the appropriate capillary with the column exit. The effectiveness of the fraction collector was demonstrated in the collection of all 11 fragments of the HaeIII restriction digest of phi X-174 plasmid DNA. Polymerase chain reaction amplification of the 271 and 281 bp fragments revealed an inversion of the size-dependent migration order.

L8 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:713653 CAPLUS
DN 135:254073
TI New apparatus and method for **electrophysiological** testing of biological membranes.
IN Trumbull, Jonathan D.; Bertrand, Daniel C.; Briggs, Clark A.; Mckenna, David G.; Maslana, Eugene S.; Blanchard, David P.; Pan, Jeffrey Y.; Bojan, Peter M.; Nemcek, Thomas A.
PA Abbott Laboratories, USA
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001071312	A2	20010927	WO 2001-US9110	20010321
	WO 2001071312	A3	20020613		
	W: AU, CA, JP, MX, NO				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1266219	A2	20021218	EP 2001-922545	20010321
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	JP 2003528308	T2	20030924	JP 2001-569250	20010321
	NO 2002004551	A	20020923	NO 2002-4551	20020923
PRAI	US 2000-532686	A	20000322		
	US 2001-790871	A	20010223		
	WO 2001-US9110	W	20010321		

AB The invention concerns a method and app. for running a plurality of tests concurrently to obtain data relating to the **electrophysiol.** properties of receptors and channels in biol. membranes of test subjects, such as, for example, Xenopus oocytes. The invention further provides software for controlling, acquiring, and recording data relating to **electrophysiol.** properties of receptors and channels in biol. membranes of test subjects, such as, for example, oocytes. This invention increases the throughput rate for expts. and assays employing receptors and ion channels expressed in biol. membranes of test subjects, such as, for example, oocytes. In the case of an oocyte, these receptors and channels may be natively expressed (endogenous), may be placed into the oocyte (exogenous), or may be expressed from other RNA or DNA previously placed into the oocyte (exogenous). The invention provides a means for a sole researcher to operate a plurality of **electrophysiol.** test stations in the time and space conventionally required by a single **electrophysiol.** test station. The invention automates these stations and provides a means for a sole individual to perform large sets of expts. that would be phys. and mentally exhausting in the absence of this invention. In addn., this invention provides efficient database and data anal. software integrated with the data acquisition software, thereby increasing the user's data-handling productivity to keep pace with the augmented data generation capacity. Diagrams describing the app. are given.

Refine Search

Search Results -

Terms	Documents
L4 same L3	20

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L5

Refine Search

Recall Text | Clear | Interrupt

Search History

DATE: Monday, December 22, 2003 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ			
L5	L4 same l3	20	L5
L4	electropo$	38267	L4
L3	L2 with l1	6444	L3
L2	flow rate or electroporat$ or variable flux or pulsed energy	422076	L2
L1	computer or computat$ or algorithm	1373955	L1

END OF SEARCH HISTORY

L9: Entry 44 of 101 File: USPT Jun 20, 2000

DOCUMENT-IDENTIFIER: US 6078490 A
TITLE: Method of treating materials with pulsed electrical fields

Detailed Description Text (10):
The apparatus employed for carrying out the method of treating material with pulsed electrical fields of the invention includes the Model PA-1000 Electroporation System of Cyto Pulse Sciences, Inc., Columbia, Md., shown in FIG. 1. The Model PA-1000 Electroporation System is designed to accomplish a wide range of electroporation tasks, many of which are not possible with existing equipment. Some of the new tasks that can be carried out by the Model PA-1000 Electroporation System include: changing pulse width from one pulse to the next; changing pulse amplitude from one pulse to the next; changing pulse interval from one pulse to the next; producing a high fidelity pulsed electric field, effectively independent of load; providing a pulse amplitude monitor which gives a very accurate replica of high voltage pulses; providing a pulse current monitor which gives a very accurate replica of pulse current; providing a computer-generated agile pulse sequence; and providing automatic data logging and recall of each pulse sequence used. As a result, the Model PA-1000 Electroporation System provides a sequence of very finely controlled, high fidelity, pulsed electric fields to electroporate a wide variety of substances including plant and mammalian cells.

L9: Entry 48 of 101 File: USPT Mar 21, 2000

DOCUMENT-IDENTIFIER: US 6041252 A
TITLE: Drug delivery system and method

Detailed Description Text (173):
The application of the subthreshold electroporation pulses will desirably be computer driven and allow variation of the appropriate signal strength and duration, and also the number and order of active electrodes which will participate in each pulse. Furthermore, as suggested by Chang in U.S. Pat. No. 5,304,486, the fields (both AC and pulsed RF) may be generated by synthesizing the required electrical wave with a digital computer and amplifying the waveform using a power amplifier. It is anticipated that emphasis may be placed on those electrodes which will effectively concentrate or orient an electrical field in those areas which are deemed to require increased distribution of the facilitory ions due to increased density or decreased blood supply. The exact specifications of intensity of voltage, duration of pulses, number and orientation of pulses will be more fully elucidated as subsequent data are accumulated.

L9: Entry 60 of 101 File: USPT Aug 12, 1997

DOCUMENT-IDENTIFIER: US 5657119 A
TITLE: Spectrometry using an optical parametric oscillator

Detailed Description Text (7):
FIG. 2 is a block diagram of a thermal lens spectrometer 50 based on a direct incidence system of the type described by K. Mori et al., "Determination of Nitrogen Dioxide by Pulsed Thermal Lens Spectrophotometry" Anal. Chem. 55, 1075-1079 (1983) and by S. Kawasaki et al. "Thermal Lens Spectrophotometry Using a Tunable Infrared Laser Generated by a Stimulated Raman Effect", Anal. Chem. 59, 523-525 (1987). In this spectrometer, the OPO output signal wave 40 from the OPO 10 is used as a pump beam, and is focused into a 1 cm sample flow cell 52 (Hellma Cells, Inc.) by way of a mirror 54, a lens 56, and a quartz wedge 58. A beam 60 from an He-Ne laser 62 (Spectra-Physics, Inc. Model 105-1) is directed to the surface of wedge 58 and is reflected coaxially with the OPO pump beam 40 into the cell 52. The beam 60 is used as the probe beam and passes through the cell without focusing, producing a sample output probe beam 64 which is directed through a quartz prism 66 to a mirror 67. The mirror 67 directs the sample output probe beam 64 through a lens 68 which expands it to a 10 mm diameter, through a pinhole aperture 70, through a polarizer 72 and through a bandpass filter 74 to a photomultiplier 76 (Thorn EMI Electron Tubes, Ltd., 9658R). The pinhole may have an aperture of 1.2 mm, with the bandpass filter being centered at the wavelength of the He-Ne probe; i.e., at 632.8 nm, and with the photomultiplier measuring the intensity of the beam center. The intensity spectrum may be supplied by way of line 80 to a personal computer for display on the computer screen in real time. In a test of the equipment, a sample of nitrogen dioxide (supplied by Matheson) was diluted to 0.5% in dry air and delivered to the flow cell 52 by way of line 82. The flow rate of the sample was 40-50 cc/min and the outlet gas line 84 was then bubbled through an NaOH solution (not shown) and discharged.

L9: Entry 66 of 101 File: USPT Sep 27, 1994

DOCUMENT-IDENTIFIER: US 5349946 A
TITLE: Microprocessor controlled flow regulated molecular humidifier

Detailed Description Text (5):
A microprocessor 36 is preferably used to control pulsing valve 30. Microprocessor 36 receives the temperature signal from temperature probe 34 indicating the temperature of the gas and the flow signal from the flow meter indicating the rate of flow of the gas. The flow signal is sent from flow meter 32 to microprocessor 36 via a line 38. The temperature signal is sent from temperature probe 34 to microprocessor 36 via a line 40. Pulsing valve 30 is controlled on or off by the microprocessor in response to these received signals representing the temperature out of the humidifier and the flow rate of gas into the humidifier via an algorithm that causes the microprocessor to calculate an amount of water that is needed to deliver a desired humidity level to the patient for a given rate of flow and temperature of the gas delivered to the patient. Because the gas exiting from ventilator 16 is dry, the algorithm is formulated from the fact that 32 mg H.sub.2 O/l of gas at 37.degree. C. delivers 100% relative humidity. Assuming that all of the water entering humidifier 24 is converted to molecular humidity, then the milligrams of water per minute that need to be delivered to the humidifier to achieve the desired humidity level in the gas delivered to the patient are easily calculated depending on the temperature of the gas flowing out of the humidifier and the liters per minute of gas flowing into the humidifier. Pulsing valve 30 allows a known amount of water to pass through pipe 28 to the humidifier with each pulse or opening of the valve. Therefore, a control signal representing the output of the algorithm is sent to pulsing valve 30 from microprocessor 36 via a line 42 to control the rate at which valve 30 is pulsed. Pulsing valve 30 turns on and off in response to these signals to maintain the water flow to the humidifier such that the desired humidity level is maintained. In this way, the relative humidity of the gas delivered to the patient is regulated.